

The Learning Equation User Manual

1 Introduction

This document is for district and/or school level IT technicians or senior staff responsible for technology planning and configuration of desktops. Please note that the information presented in this document does not apply to typical home computers unless a proxy server is being used in the environment.

IMPORTANT: If there is a proxy server in use between desktops and the Internet or SuperNet, continue reading. If there is no proxy server in use, then proceed to section 4.

2 Background on the TLE Product

The TLE project is a large math resource developed over the past 5 years. It is not a typical LearnAlberta.ca resource in that it requires the installation of a separate software player application in order to use the content. This software player is distinct from browser applications like Internet Explorer and Netscape. It requires installation on each desktop and once installed will remain consistent for an entire school year. This project was initiated prior to the implementation of LearnAlberta.ca plug-in and player standards and was an attempt by the vendor to provide a consistent user experience on many platforms.

3 How does TLE Work?

3.1 *Windows 2000 and Windows XP with Internet Explorer*

This configuration results if Internet Explorer is the default browser when AL Math Reader is installed.

The player consists of the following files:

File	Description
C:\Program Files\AL-Math-Reader\AL-Math-Reader.exe	Main player file
C:\Program Files\AL-Math-Reader\AL-Math-Reader.lib	XML file for proxy configuration
C:\Program Files\AL-Math-Reader\Pluginhostctrl.dll	ActiveX wrapper that allow Internet Explorer to use the Netscape-style Plug-in.
C:\Program Files\Internet	Plug-in that allows browser to launch

Explorer\PLUGINS\npALReader.dll	player.
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The following registry keys are installed:

File	Description
HKEY_LOCAL_MACHINE\SOFTWARE\ISACSOFT	Contains data about player, plug-in and wrapper.
HKEY_LOCAL_MACHINE\SOFTWARE\CLASSES\CLSID\{DBB2DE32-61F1-4F7F-BEB8-A37F5BC24EE2}	Active-X registration for plug-in wrapper.

The player creates and uses the following folders during operation:

Directory	Description
C:\Document and Settings\<USERNAME>\Application Data\Browser-Modules	Caches extensions to the TLE player
C:\Document and Settings\<USERNAME>\Application Data\TLE	Caches content

These directories are installed in the home directory of the user.

A typical user experience would happen as follows:

1. User logs in to LearnAlberta.ca and browses to the TLE launch page OR searches the portal for TLE content.
2. User selects the TLE module or lesson they wish to view and launches the content.
3. The browser uses the ActiveX wrapped plug-in to pass the content to the *AL-Math-Reader.exe* main player file. If the player is not already running, the plug-in starts the player.
4. The *AL-Math-Reader.exe* then communicates directly to LearnAlberta.ca for content loading and execution. This communication is independent of the browser session and uses the *AL-Math-Reader.lib* file to configure a proxy server if configured.
5. The TLE player loads the content file. The user interacts with the content and eventually exits the lesson or module, telling the player to terminate. *AL-Math-Reader.exe* terminates. Focus returns to the browser page where the content was launched.

3.2 Windows 2000 and Windows XP with Netscape

This configuration results if Netscape is the default browser when AL Math Reader is installed.

The player consists of the following files:

File	Description
C:\Program Files\AL-Math-Reader\AL-Math-Reader.exe	Main player file
C:\Program Files\AL-Math-Reader\AL-Math-Reader.lib	XML file for proxy configuration
C:\Program Files\AL-Math-Reader\Pluginhostctrl.dll	ActiveX wrapper that allow Internet Explorer to use the Netscape-style Plug-in. (Not used.)
C:\Program Files\Netscape\Netscape\Plugins\npALReader.dll	Plug-in that allows browser to launch player.

The following registry keys are installed:

File	Description
HKEY_LOCAL_MACHINE\SOFTWARE\ISACSOFT	Contains data about player, plug-in and wrapper.
HKEY_LOCAL_MACHINE\SOFTWARE\CLASSES\CLSID\{DBB2DE32-61F1-4F7F-BEB8-A37F5BC24EE2}	Active-X registration for plug-in wrapper.

The player creates and uses the following folders during operation:

Directory	Description
C:\Document and Settings\<USERNAME>\Application Data\Browser-Modules	Caches extensions to the TLE player
C:\Document and Settings\<USERNAME>\Application Data\TLE	Caches content

These directories are installed in the home directory of the user.

A typical user experience would happen as follows:

1. User logs in to LearnAlberta.ca and browses to the TLE launch page OR searches the portal for TLE content.
2. User selects the TLE module or lesson they wish to view and launches the content.
3. The browser uses the plug-in to pass the content to the *AL-Math-Reader.exe* main player file. If the player is not already running, the plug-in starts the player.
4. The *AL-Math-Reader.exe* then communicates directly to LearnAlberta.ca for content loading and execution. This communication is independent of the browser session and uses the *AL-Math-Reader.lib* file to configure a proxy server if configured.
5. The TLE player loads the content file. The user interacts with the content and eventually exits the lesson or module, telling the player to terminate. *AL-Math-Reader.exe* terminates. Focus returns to the browser page where the content was launched.

3.3 Mac OS 9.2

The player consists of the following files:

File	Description
Macintosh HD:Applications (Mac OS 9):AL-Math-Reader	Main player file
Macintosh HD:Applications (Mac OS 9):Applications:AL-Math-Reader.lib	XML file for proxy configuration
Internet Explorer 5.1:Plug-Ins:nsALReaderPlugin.plg	Browser plug-in for Internet Explorer
Netscape:Plug-Ins:nsALReaderPlugin.plg	Browser plug-in for Netscape

The browser plug-ins are installed into the appropriate browser directories.

The player creates and uses the following folders during operation:

Directory	Description
Macintosh HD:System Folder:Preferences:Browser-Modules	Caches extensions to the TLE player.
Macintosh HD:System Folder:Preferences:TLE	Caches content.

A typical user experience would happen as follows:

1. User logs in to LearnAlberta.ca and browses to the TLE launch page OR searches the portal for TLE content.
2. User selects the TLE module or lesson they wish to view and launches the content.
3. The browser uses the plug-in to pass the content to the *AL-Math-Reader* main player file. If the player is not already running, the plug-in starts the player
4. The *AL-Math-Reader* then communicates directly to LearnAlberta.ca for content loading and execution. This communication is independent of the browser session and uses the *AL-Math-Reader.lib* file to configure a proxy server if configured.
5. The TLE player loads the content file. The user interacts with the content and eventually exits the lesson or module, telling the player to terminate. *AL-Math-Reader* terminates. Focus returns to the browser page where the content was launched.

3.4 Mac OS X 10.3 (Installed by a User)

The player consists of the following files:

File	Description
~/Application/AL-Math-Reader	Main player file
~/Library/nsALReaderPlugin.plg	Browser plug-in
~/Application/AL-Math-Reader.lib	XML File for proxy configuration.

These files are installed in the home directory of the user.

The player creates and uses the following folders during operation:

Directory	Description
~/Library/Preferences/Browser-Modules	Caches extensions to the TLE player.
~/Library/Preferences/TLE	Caches content.

These directories are installed in the home directory of the user.

A typical user experience would happen as follows:

1. User logs in to LearnAlberta.ca and browses to the TLE launch page OR searches the portal for TLE content.
2. User selects the TLE module or lesson they wish to view and launches the content.
3. The browser uses the plug-in to pass the content to the *AL-Math-Reader* main player file. If the player is not already running, the plug-in starts the player.

4. The *AL-Math-Reader* then communicates directly to LearnAlberta.ca for content loading and execution. This communication is independent of the browser session and uses the *AL-Math-Reader.lib* file to configure a proxy server if configured.
5. The TLE player loads the content file. The user interacts with the content and eventually exits the lesson or module, telling the player to terminate. *AL-Math-Reader* terminates. Focus returns to the browser page where the content was launched.

3.5 Mac OS X 10.3 (Installed by an Administrator)

The player consists of the following files:

File	Description
/Application/AL-Math-Reader	Main player file.
/Library/nsALReaderPlugin.plg	Browser plug-in.
/Application/AL-Math-Reader.lib	XML file for proxy configuration.

These files are installed in the root directory.

Each time a user uses the player for the first time, the player creates and uses the following folders during operation:

Directory	Description
~/Library/Preferences/Browser-Modules	Caches extensions to the TLE player.
~/Library/Preferences/TLE	Caches content.

These directories are installed in the home directory of the user.

A typical user experience would happen as follows.

1. User logs in to LearnAlberta.ca and browses to the TLE launch page OR searches the portal for TLE content.
2. User selects the TLE module or lesson they wish to view and launches the content.
3. The browser uses the plug-in to pass the content to the *AL-Math-Reader* main player file. If the player is not already running, the plug-in starts the player.
4. The *AL-Math-Reader* then communicates directly to LearnAlberta.ca for content loading and execution. This communication is independent of the browser session and uses the *AL-Math-Reader.lib* file to configure a proxy server if configured.
5. The TLE player loads the content file. The user interacts with the content and eventually exits the lesson or module, telling the player to terminate. *AL-Math-Reader* terminates. Focus returns to the browser page where the content was launched.

3.6 How does this proxy configuration file work?

The proxy configuration file *AL-Math-Reader.lib* is a text file containing XML used to pass proxy server information to the main player file. This method was requested to allow a one-time standard deployment of the player to be created by district technicians that would be configurable for all desktops in the lab, school, or district. The contents of the file look like this:

```
<!--
```

```
This is the Prisme Internet Proxy Configuration file.
```

```
In the following XML, you will be able to specify the address
(for instance 10.0.2.166), and port of your Proxy Server.
```

```
If it is not defined here, the system default proxy server will be
used. It is defined in the Mac System Preferences under Network, or
in the Windows Control Panel under Internet Options.
```

```
You also can specify here a user name and password to be used for
authentication on the proxy.
```

```
This file is case-sensitive.
```

```
---
```

```
Ceci est le fichier de configuration pour la connexion par
serveur proxy.
```

```
Dans le XML suivant, vous pouvez spécifier l'adresse
(par exemple 10.0.2.166) et le port du serveur proxy.
```

```
Si il n'est pas défini ici, le serveur proxy par défaut du système
sera utilisé. Il est défini dans les préférences systèmes du Mac
dans la catégorie Réseau, ou dans le panneau de configuration de
Windows dans la section Options Internet.
```

```
Vous pouvez aussi spécifier ici un nom et un mot de passe pour
l'utilisateur à utiliser pour fin d'authentification au serveur proxy.
```

```
Ce fichier est sensible à la casse.
```

```
-->
```

```
<ProxyConfiguration>
  <Server>
    <Address></Address>
    <Port></Port>
  </Server>
  <User></User>
  <Password></Password>
</ProxyConfiguration>
```

The actual configuration segment is the last piece of the file listed just above. As indicated in the comments at the top of the file, a server IP address or fully qualified

domain name can be specified, along with a particular port number and login and password if required.

This format can be used to support many different types of proxy configuration. For example, a **non-authenticating proxy** with an IP address of 10.10.1.1 on port 80 would be setup using this configuration. (Configuration entries have been bolded to make them easier to see)

```
<ProxyConfiguration>
  <Server>
    <Address>10.10.1.1</Address>
    <Port>80</Port>
  </Server>
  <User></User>
  <Password></Password>
</ProxyConfiguration>
```

An **authenticating proxy** with a name of proxy.gov.ab.ca on port 8080 and a login of a typical user and a password of secret would be setup as follows.

```
<ProxyConfiguration>
  <Server>
    <Address>proxy.gov.ab.ca</Address>
    <Port>8080</Port>
  </Server>
  <User>typicaluser</User>
  <Password>secret</Password>
</ProxyConfiguration>
```

4 How could this player be deployed?

A simple way to install the player in a lab would be to download the files from the LearnAlberta.ca site (<http://www.learnalberta.ca/Redirector/Redirect.aspx?Id=06d40c44-cce1-4e31-8afe-fed737aa01f2>), configure the proxy file on that version, and copy the three files to the same location on each desktop in the lab/school/district. Districts that use desktop images could add the player and appropriately configured proxy file to their images. Districts using automated package deployment tools could create the necessary file and deploy it. Once the proxy info is configured it will that way until changed by a user or district technician.

5 How often will this player version change?

The player version will remain static for a school year, running from September to September. It will not be changed during a school year, and it may not change for several years. Notification of a change (or no change) will be made in May so that planning for summer break updating can be done.

6 What support is provided for this player by Alberta Education?

Alberta Education, through the HelpDesk and the LearnAlberta.ca team, will provide front line support of the player. If there are problems that Alberta Education cannot resolve, the vendor ISACSoft has been contracted to provide second level support on the player.

Please note: Only the current version of the player will be supported. Once a newer version of the player is announced, it becomes the supported version starting the next September 1st and all desktops using the older version should be upgraded to the current version. Alberta Education will test each new version on the supported operating systems prior to announcing the release of the newer version. When a newer version of the player is announced and goes into use on September 1st, the older version will no longer be supported by Alberta Education.

7 What Operating Systems is the AL-Math-Reader player supported on?

The AL-Math-Reader is currently supported on the following operating systems:

- Microsoft Windows 2000
- Microsoft Windows XP
- Apple Mac OS 9.2 (only in environments that use a proxy server for connecting to the Internet)
- Apple Mac OS X 10.3 through 10.3.9 (only in environments that use a proxy server for connecting to the Internet)

8 The Math Reader Cache

The Math Reader saves certain graphics and other information in a cache file on your hard drive. After going through many lessons, the cache file will reach a maximum limit and will need to be cleared. If a lesson does not run (and you have successfully ran lessons in the past), you must clear the cache. After the cache is cleared the lessons will again run normally. Selecting the "Math Reader Clear Cache" button at the top of any lesson selection page will clear the cache.